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ASBESTOS DUMP SITE
OPERABLE UNIT 2
NEW VERNON ROAD AND WHITE BRIDGE ROAD SITES
MEYERSVILLE, MORRIS COUNTY NEW JERSEY

EXPLANATION of SIGNIFICANT DIFFERENCES

Introduction

The purpose of this document called an Explanation of Significant Differences (ESD), is to provide the public with an explanation of a change the United States Environmental Protection Agency (EPA) has made to a portion of the remedy contained in the Record of Decision (ROD) issued on September 27, 1991 for the Asbestos Dump Superfund Site, Operable Unit 2, New Vernon Road and White Bridge Road sites. This ESD is issued pursuant to Section 117(c) of the Comprehensive and Liability Act of 1980, as amended (CERCLA) 42 U.S.C. Section 9617(c) and by Section 300.435(c)(2)(i) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) 40 C.F.R. Section 300.435(c)(2)(i).

The New Vernon Road and White Bridge Road sites are located in Meyersville, Long Hill Township, Morris County, New Jersey. EPA is the lead agency for the remediation of the Operable Unit 2 sites and the State of New Jersey Department of Environmental Protection and Energy (NJDEPE) is supporting EPA in the remediation.

The ROD, issued by EPA with the concurrence of NJDEPE, addresses the remediation of asbestos-contaminated soils at the sites. The ROD remedy includes: in-situ solidification/stabilization of asbestos contaminated soils; appropriate environmental monitoring to confirm the effectiveness of the remedy; and implementation of institutional controls to restrict future subsurface activities and assure the integrity of the treated solidified mass.

The modified remedy differs from the remedy selected in the ROD in that asbestos-contaminated soils below the water table will not be solidified. Solidification below the water table is technically impracticable, due to acidic groundwater conditions at the site. In addition, design modifications have been made to enhance the overall effectiveness of the remedy, above and below the water table.

EPA and NJDEPE encourages the public to review this and other documents comprising the Administrative Record in order to obtain a more comprehensive understanding of the New Vernon Road and White Bridge Road sites and the Superfund activities that have been conducted. The Administrative Record has been prepared under Section 300.825(a)(2) in accordance with the NCP and is available at the following locations: Long Hill Township Free Public Library, 91 Central Avenue, Sterling, N.J., 07980, (908) 647-2088 and U.S.EPA - Region II, 26 Federal Plaza, New York, New York, 10278, (212) 264-5392.

Summary of Site History, Contamination Problems, and Selected Remedy

The Asbestos Dump Superfund Site is a National Priorities List Site which consists of four properties and is divided into three operable units (OU) located in southeastern Morris County, New Jersey. These four properties are the Millington site (i.e., OU1), the New Vernon Road site and White Bridge Road sites (i.e., OU2), and the Dietzman Tract (i.e., OU3).

The subject of this ESD is the OU2, the New Vernon Road and White Bridge Road sites (the "sites"). In August 1990, EPA performed sampling and analysis of soils at the sites, as part of a Removal Assessment Program. The results indicated the presence of asbestos in soils at levels of up to five percent. EPA transmitted this data to the Agency for Toxic Substances and Disease Registry (ATSDR) for review. ATSDR issued a Health Advisory which recommended, among other things, that affected residents be disassociated from exposure to site-related asbestos.

Based on the findings of the August 1990 sampling and the ATSDR Health Advisory, EPA performed a removal action at the site in the fall of 1990. Removal activities included covering exposed asbestos with geotextile fabric or asphalt and limiting access to contaminated areas. In conjunction with removal activities, EPA funded and performed a Remedial Investigation and Feasibility Study (RI/FS) at the sites. During the RI/FS, extensive soil sampling was performed to characterize all areas contaminated with asbestos. Air sampling was also performed.

Based on RI results, the only media requiring remediation at the sites is soil. The remedial objectives for asbestos-contaminated soils are: (a) preventing human and animal contact with asbestos contaminated soils at concentrations above the target soil concentrations; (b) eliminating airborne emissions of asbestos from contaminated soils and (c) preventing degradation of natural resources at the sites, including wetlands and surface water.

Five remedial alternatives were evaluated in the FS to remediate contaminated soils. In July 1991, in-situ solidification/ stabilization of asbestos contaminated soils was presented to the public as EPA's preferred alternative. EPA solicited comments on the preferred alternative during the public comment period from July 8, 1991 to August 7, 1991. A public meeting was held in the effected community on July 17, 1991 to discuss the findings of the RI/FS and the preferred alternative for remediating the sites. In addition, written and verbal comments were included in the Responsiveness Summary of the ROD.

The EPA-issued, September 27, 1991, ROD memorializing the remedy selected for the sites included the following components:

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- in-situ solidification/stabilization of asbestos contaminated soils;

- appropriate environmental monitoring to confirm the effectiveness of the remedy; and

- implementation of institutional controls to restrict future subsurface activities and assure the integrity of the treated waste.

Description of the Significant Difference Between the September 1991 ROD and the Modified Remedy

A treatability study was initiated in September 1991 to determine the operating parameters for the full-scale, in-situ solidification/stabilization treatment system. The objectives of the treatability study were: (a) to determine the design parameters, (e.g., volume change, unconfined compressive strength, etc.); (b) to determine the most effective and economical solidification/stabilization agent and the optimum additives and mixtures for asbestos containing materials (ACM); (c) to recommend the preferred agent/mixtures using the results of the physical and chemical testing performed as part of the treatability study; and (d) to verify the waste characteristics of both sites for comparison. The results of the treatability study report are located in the Long Hill Township repository. The treatability study showed that solidification/stabilization was successful for soils above, but not below, the groundwater table.

The ROD provided for in-situ solidification/stabilization of all ACM greater than 0.5 percent. This would have included solidifying to depths below the groundwater table. However, the results of the leachability tests of the treatability study indicated that solidification below the groundwater table was technically impracticable. Specifically, solidification could not prevent the development of leachate containing asbestos fibers below the Safe Drinking Water Act's maximum contaminant levels. Moreover, due to naturally occurring acidic ground water conditions and its reaction with the alkaline solidified mass, the solidification process actually enhanced the leachability of asbestos below the water table.

Therefore, based on the treatability study findings, only ACM above the water table will be solidified and the following design modifications will be implemented to enhance the overall effectiveness of the remedy (i.e., above and below the water table) including: (a) upgrading the cover on the solidified mass with a synthetic membrane liner to eliminate infiltration; (b) placing geotextile fabric in a trench around the solidified area to prevent asbestos fibers from migrating through the groundwater; and (c) installing monitoring wells downgradient of the solidified area to

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detect asbestos migration in groundwater. The design modifications will result in a remedy that is protective of human health and the environment for the following reasons. Recent sampling indicated that asbestos levels in the underlying groundwater are far below the allowable maximum concentration limit of 7 million fibers per liter. Other studies have indicated that asbestos is virtually immobile in soils (asbestos moves at a rate of 1 to 10 centimeters per 3,000 to 40,000 years in soil). Since the remedy will result in asbestos, a hazardous substance, remaining on the sites above health-based levels, this remedy will be subject to the Five Year Review requirements in accordance with Section 121(c) of CERCLA. Based on this review, EPA would undertake additional remedial action as necessary.

In addition, wet/dry and freeze/thaw durability testing were performed in the treatability study. The results which give an indication of the long term reliability of solidification, showed minimum material loss. Therefore, the degree of permanence afforded by the remedy has not changed with respect to ACM above the water table. Although solidification can not be used to achieve permanence below the water table, the design changes discussed above will enhance the permanence of the remedy below the water table. The EPA believes that the modified remedy is protective of human health and the environment, involves on-site treatment, uses permanent solutions to the maximum extent practicable and is consistent with the NCP.

Affirmation of Statutory Determinations

Considering the new information that has been developed and the changes that have been made to the selected remedy, EPA believes that the remedy remains protective of human health and the environment, complies with federal and state requirements that were identified in the ROD as applicable or relevant and appropriate to this remedial action at the time the original ROD was signed, and is cost effective. In addition, the modified remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable for the sites.

Public Participation in Activities

EPA has been in frequent communication with the residents of the sites and has on a number of occasions advised the community and local officials of activities at the sites. On November 6, 1992, EPA visited the residents of the sites to explain the details of the remedial design plans and the changes to the design based on the results of the treatability study. On January 20, 1993, EPA attended a public availability meeting at the Long Hill Township Hall. At that meeting, EPA explained the details concerning the design and impacts to the community. On June 9, 1993, EPA visited the New Vernon Road residents, to again discuss their concerns regarding remedial action activities.

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In accordance with the requirements of Section 117(d) of CERCLA and Section 300.435(c)(2)(i) of the NCP, EPA will publish a notice of this ESD in the Echoes Sentinel, a local New Jersey newspaper. In addition, this ESD will be included in the Administrative Record, which is available at the above mentioned repositories.

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